INDEX TO VOLUME 31

[New names in **boldface** type]

abieticola, Tamiasciurus, 85
Abundance of:
Blarina, 318
Cryptotis, 318
Oryzomys, 318
Peromyscus, 318
Reithrodontomys, 318
Sigmodon, 318
Acinonyx jubatus velox, 186
Activity cage, 417, 418
actuosa, Martes, 465
Adams, David A.:
Myotis subulatus leibii in North Carolina, 97
Adaptation syndrome, 250
Adenota kob leucotis, 188
kob thomasi, 188
leche megaceros, 188
melampus melampus, 188
melampus suara, 188
aethiops, Cercocebus, 150
Cercopithecus, 186
affinis, Ratufa, 342
Africa, loc. list, 185
africana, Loxodonta, 187
africanus, Phacochoerus, 187
Age classes in:
fur seals, 393
agilis, Hylobates, 151
agrestis, Microtus, 248
akeleyi, Nesotragus, 188
alascensis, Lemmus, 466
Vulpes, 465
Alaska, 99, 304, 384, loc. list, 464
Alberta, 167
albicauda, Ichneumia, 186
albifrons, Damaliscus, 188
Albinism in:
Antrozous, 350
Glossophaga, 350
albojubatus, Connochaetes, 187
Alcelaphus buselaphus cokii, 187
buselaphus jacksoni, 187
Alces americana, Mich., 359; Mont., 460
americana gigas, Alaska, 466
alexandrinus, Rattus, 86, 293, 461
allegheniensis, Mustela, 146
Allen, E. Ross, and Wilfred T. Neill:
Cleaning mammal skeletons with meal worms, 464
Allen, Ross
Notes on the Florida panther, Felis concolor coryi Bangs, 279
alleni, Neofiber, 460
Alopex lagopus innuitus, Alaska, 465
americana, Alces, 359, 460
americanus, Lepus, 193, 357, 361
Lynx, 359
Ursus, 84, 359, 360
Zapus, 86
amphibius, Hippopotamus, 187
Anatomy of:
Geomys, 288
Marmota, 196
Rattus, 288
angasii, Tragelaphus, 189
Annual meeting, thirtieth, 479
Antelope, 192
roan, 189
sable, 189
Antidorcas marsupialis marsupialis, 188
Antilocapra, Mont., 192
Antrozous pallidus, Calif., 456
pallidus pallidus, 350
anubis, Papio, 186
Apodemus sylvaticus, 248
aquaticus, Scalopus, 83
Sylvilagus, 87
araneus, Sorex, 140
arctica, Mustela, 465
arcticus, Rangifer, 361
Arctocephalus townsendi, Calif., 175
argentiventer, Rattus, 343
Arizona, 463
Armadillo, 361
Artibeus planirostris trinitatus, 277
arundinum, Redunca, 188
Arvey, M. Dale, and Bryan P. Glass:
The black-footed ferret in Oklahoma, 460
Atherurus macrourus, 344
auratus, Cricetus, 121
aureolus, Peromyscus, 86, 316
auricularis, Pitymys, 360
australis, Strepsiceros, 189
austrinus, Geomys, 314

Baboon, 150
Anubis, 186
Chacma, 186
Baculum, Callorhinus, 384
Badger, 90, 346, 354, 355, 359
baileyi, Lynx, 327
bairdii, Peromyscus, 20, 74, 100
Bait, protection of, 199
Baja California, 436
Baker, Rollin W.:
The taxonomic status of Geomys breviceps texensis Merriam and Geomys bursarius llanensis Bailey, 348
Baldwin, Paul H.:
Occurrence and behavior of the Hawaiian bat, 455
Bandicota bengalensis, 345
Banding:
Myotis, 350
Banfield, A. W. F.:
A further note on the longevity of the big brown bat, 455
Barbour, Roger W.:
Notes on banded bats, 350
The roof rat, Rattus rattus alexandrinus (Geoffroy), in West Virginia, 461
Barbour, Roger W., and B. L. Barbour:
Some mammals from Hart County, Kentucky, 359
barrowensis, Citellus, 304, 466
Spermophilus, 304
Bartholomew, George A., Jr.:
A male Guadelupe fur seal on San Nicolas Island, California, 175
Bat, 274, 349, 350
big brown, 84, 96, 455
big-eared, 84
colony, 400
European, 395, 438
evening, 84
free-tailed, 84
fruit, 274
Hawaiian, 455
hoary, 84, 456
horse-shoe, 274
Indiana, 84
Keen's, 84
leaf-nosed, 350
little brown, 84, 97, 359
Mexican free-tailed, 400, 456
pallid, 456
pink, 84
pipistrelle, 313
red, 84, 457
Seminole, 84, 313
silver-haired, 84
social, 84
spotted, 197
western pipistrelle, 456
yellow, 84
Bear, black, 84, 135, 359, 360
grizzly, 362, 465
Kadiak, 449
polar, 162
Beatty, Myrtle Dee, and Howard H. Hillemann:
Osteogenesis in the golden hamster, 121
Beaver, 359, 361
Beer, James R.:
The least weasel in Wisconsin, 146
Behavior:
center of activity, 29
Behavior of:
Arctocephalus, 175
Blarina, 281
Castor, 40
coyote, 67
Eptesicus fuscus, 96
Erethizon dorsatum dorsatum, 94, 411
Lasiurus cinereus, 456
Lasiurus semotus, 455
Macaca, 93
Microtus californicus, 96
Neotoma, 421
Ondatra, 97
Oryzomys, 421
Rattus, 301
Scalopus, 281
Beidleman, Richard G.:
The cinereous shrew below 6000 feet in north central Colorada, 459
beisa, Oryx, 189
beldingi, Citellus, 198
Bell, William Bonar, obit., 375
bengalensis, Bandicota, 345
Bennitt, Rudolf, obit., 376
bicolor, Ratufa, 342
bicornis, Diceros, 189
Bighorn, 463
Bison bison, Wyo., breeding, 463
Blanchard, Willard E.:
(see Arthur F. Halloran and Willard E. Blanchard)
Blarina, Penn., behav., 281
brevicauda, par., 138; 267, 351
brevicauda carolinensis, N.C., 84; Fla., 313
brevicauda kirtlandi, Mich., 359

Blesbok, 188
Bobcat, 85, 327, 359
böhmi, Hippotigris, 189
Bolt, Benjamin F., obit., 119
borealis, Lasiurus, 84, 190, 350, 457
Odocoileus, 5
Synaptomys, 460
bottae, Thomomys, 320, 362
bowersi, Rattus, 343
boylii, Peromyscus, 320
brachyura, Hystrix, 345
Breeding of:
Cricetus, 121
Didelphis, 94, 333
Lynx, 327
Neotoma, 421
Ondatra zibethica osoyoosensis, 97
Oryzomys, 421
Peromyscus, 74
Rattus, 300
red fox, 194
Sigmodon, 317
brevicauda, Blarina, 138, 267
brevimanus, Natalus, 443
breweri, Parascalops, 138, 458
broweri, Marmota, 466
Buck, Paul David:
(see Clarence A. Tryon, Jr., and Paul David Buck)
Buffalo, Cape, 189
East African, 189
Bullerman, Robert:
Note on kidnapping by bonnet monkey, 93
bursarius, Geomys, 288
buselaphus, Alcelaphus, 187
Bushbuck, Limpopo, 189
Lord Delamere's, 189
Buss, Irven O., and Frank H. Harbert:
Relation of moon phases to the occurrence of mule deer at a Washington salt lick, 426

Cabot, William B., obit., 119
cafer, Pedetes, 187
caffer, Syncerus, 189
Cagle, Fred R.:
A Texas colony of bats, Tadarida mexicana, 400
Cahalane, Victor H.:
Badger-coyote "partnerships," 354
California, 1, 175, 327, 356, 362, 434, 452, 456, 457
californicus, Microtus, 96
Ursus, 362
Callery, Roberdeau:
Congenial relationships between raccoon and white rat, 354
Callorhinus, 178
ursinus, 384
Callosciurus caniceps, 342
erythraeus, 342
hippurus, 342
lowi, 342
nigrovittatus, 342
notatus, 342
provosti, 342
(Tamiops) maclellandi, 342
tenuis, 342
Camburn, F. Lawrence:
(see F. N. Hammerstrom and F. Lawrence Camburn)
camelopardalis, Giraffa, 187
Cameron, Austin W.:
A new chipmunk (Tamias) from Ontario and Quebec, 347
cameroni, Rattus, 344
campestris, Raphicerus, 188
Zapus, 22
canadensis, Castor, 40, 359, 361
Cervus, 464
Lutra, 359, 466
Lynx, 359, 466
Ovis, 193, 463
caniceps, Callosciurus, 342
Canis latrans, Mich., 359
latrans estor, Calif., 452
lupus, Mich., 359
lupus lycaon, 171
lupus tundrarum, Alaska, 465
Cannibalism in:
Microtus, 96
capensis, Giraffa, 187
Hippopotamus, 187
Mellivora, 186
capricornis, Raphicerus, 188
Captivity:
Blarina, 286, 351
Scalopus, 281
Capuchin, 150
Caracal, 186
caracal, Felis, 186
carbonarius, Tarsius, 260
Care of:
porcupines, 411
Caribou, 359, 361, 466
caribou, Rangifer, 359

carolinensis, Blarina, 84, 313
Sciurus, 85, 313
Carroll, Mitchel, obit., 119
Carter, T. Donald:
On the migration of the red bat, Lasiurus borealis borealis, 349
Castor canadensis, 40, Mich., 359; Yukon, 361
Cat, domestic, 356
Census methods, 382, 383
centralis, Cercopithecus, 186
Cephalophus natalensis natalensis, 188
Cercocebus aethiops, 150
fuliginosus, 150
mitas, 150
Cercopithecus aethiops aethiops, 186
aethiops centralis, 186
aethiops cynosuros, 186
aethiops johnstoni, 186
aethiops pygerythrus, 186
mitis kolbi, 186
Cercopitheque, 150
Cervus canadensis, Wash., 464
canadensis occidentalis, Calif., 362
Chaerephon, 350
chanleri, Redunca, 188
chapmani, Hippotigris, 189
Cheetah, 186
Chilonatalus macer, syn., 443
micropus, 437
tumidifrons, syn., 443
Chipmunk, 347, 348, 350, 359
eastern, 85, 138
Chiropodomys gliroides, 343
Christian, John J.:
A field method of determining the reproductive status of small male mammals, 95
A precocious male Microtus pennsylvanicus, 195
Polyovular follicles in the woodchuck (Marmota monax), 196
The adreno-pituitary system and population cycles in mammals, 247
Behavior of the mole (Scalopus) and the shrew (Blarina), 281
cinerea, Neotoma, 196
cinereoargenteus, Urocyon, 78, 85, 198
cinereus, Lasiurus, 84, 456
Sorex, 22, 100, 138, 352, 359, 459
Citellus barrowensis, 304
beldingi crebus, Utah, 198
(Colobotis) parryi kennicotti, 304
franklini, Neb., 158
parryi barrowensis, Alaska, 466
tridecemlineatus, Neb., 158; 256, 308
Clethrionomys gapperi, 138; Mich., 359
gapperi loringi, 22
glareolus, 435
rutilus dawsoni, Alaska, 466
Climbing ability of:
Peromyscus, 314
cokii, Alcelaphus, 187
Coleman, Robert H.:
The status of Lasiurus borealis seminolus (Rhoads), 190
DDT protects bait from ants, 199
Colobotis kennicotti, 304
Colorado, 193, 459
colusus, Ursus, 363
communis, Phocaena, 164
concolor, Rattus, 344
Condylura cristata, N. C., 83; Mich., 359
Connochaetes taurinus albojubatus, 187
taurinus hecki, 187
taurinus taurinus, 187
coryi, Felis, 279
Corynorhinus macrotis, N. C., 84
cottoni, Redunca, 188
Cottontail, 322, 356
Coyote, 66, 354, 359, 452
Crabb, Wilfred D., and Gordon W. Watson:
Black-footed ferret in Montana, 99
crebus, Citellus, 198
cremoriventer, Rattus, 344
Cricetus auratus, 121
cristata, Condylura, 83, 359
Cystophora, 450
Crocidura, 345
Crocuta crocuta crocuta, 186
crocuta germinans, 186
Cross, E. C., obit., 376
Cryptorchid, elk, 464
seal, 389
Cryptotis, 352
floridana, Fla., 313
parva, 138
parva parva, N. C., 84; Ky., 360
cuniculus, Oryctolagus, 357
Cycles, 247
cynocephala, Tadarida, 84, 277, 395
Cynocephalus volans, hab., 269
Cynopithecus niger, 150
Cynopterus sphinx, 274; parturition, illust., 276, 277
cynosuros, Cercopithecus, 186
Cystophora cristata, hab., 450

dalli, Lepus, 466
Ovis, 466
Phocoenoides, 99
Dalquest, W. W.:
(see H. J. Werner, W. W. Dalquest, and J. H. Roberts)
The genera of the chiropteran family Natalidae, 436
Damaliscus korrigum tiang, 188
lunatus, 188
pygargus albifrons, 188
Dasypterus floridanus, N. C., 84
Dasypus novemcinctum mexicanus, Fla., 361
Davis, David E.:
(see H. J. Spencer and David E. Davis)
Davis, Malcolm:
Hybrids of the polar and Kadiak bear, 449
dawsoni, Clethrionomys, 466
Dean, Howard J.:
Porcupine swims for food, 94
Deer, Eld's, 430
mule, 193, 426
white-tailed, 87, 359
defassa, Kobus, 188
delamerei, Tragelaphus, 189
Dens of:
Didelphis, 332
de Vos, A.:
Timber wolf movements on Sibley Peninsula, Ontario, 169
diardi, Rattus, 343
Diceros bicornis, 189
Dicrostonyx groenlandicus rubricatus, Alaska, 466
Didelphis, 94
virginiana pigra, 83; Fla., 313
virginiana virginiana, N. C., 83; Ia., life hist., 331
Dik-dik, long-snouted, 188
Dille, Frederick M.; obit., 376
Disease in:
Microtus, 194
Rattus, 293
Zapus, 194
Distances traveled by:
Oryzomys, 316
Peromyscus, 315
Sigmodon, 317
Dog, hunting, 186
Dolichohippus grevyi, 189
dominicensis, Natalus, 442
dorcas, Gazella, 188
dorsatum, Erethizon, 94
Drake, Guy E., and C. C. Presnall:
A badger preying upon carp, 355
Dremomys rufigenis, 342
drummondii, Microtus, 21
Duiker, East African crowned, 188
gray, 188
red, 188

Eads, Richard B., and George C. Menzies:
Fox ectoparasites collected incident to a rabies control program, 78
Echinosorex gymnurus, 344
Ecology of:
Didelphis, 331
Rattus, 294
Ectoparasites of:
Lasionycteris, 358
Marmota, 358
Microtus, 357
Ondatra, 357
Pitymys, 358
Rattus, 295
Tamias, 358
Zapus, 357
edwardsi, Rattus, 344
Eland, Patterson's, 189
Elephant, 431
bush, 187
Sudan, 187
Elk, 464
Roosevelt, 362
ellipsiprymnus, Kobus, 188
elongata, Mephitis, 85
elucus, Procyon, 313
Embryos of:
Antilocapra, 192
Lasiurus, 191
Mustela, 148
Myotis lucifugus, 96
Ondatra, 182
red fox, 195
Emlen, John T., Jr.:
(see Howard Young, Robert L. Strecker, and John T. Emlen, Jr.)
Eptesicus, 350
fuscus, 96; Ky., 457
fuscus fuscus, N. C., 84; Que., longevity, 455
equinus, Hippotragus, 189
eremicus, Lepus, 357
Erethizon, Mich., 359; 411
dorsatum dorsatum, 94
dorsatum myops, Alaska, 466

Ermine, 465
erminea, Mustela, 146, 359
erythraeus, Callosciurus, 342
estor, Canis, 452
Euderma maculata, Mont., 197
Eutamias minimus, Mich., 359
Evans, Francis C.:
Correction, 119
everetti, Urogale, 352

Fat metabolism in:
Odobaenus, 162
Phoca, 162
Thalarctos, 162
Felis caracal, 186
concolor coryi, Fla., hab., illust., 279
silvestris grampis, 328
ferreocanus, Rattus, 343
Ferret, black-footed, 99, 460
Fichter, Edson:
Watching coyotes, 66
Fitch, Henry S.:
A new style live-trap for small mammals, 364
Florida, 279, 293, loc. list., 310, 361
floridana, Cryptotis, 313
Neotoma, 86, 361, 421
floridanus, Dasypterus, 84
Lynx, 85
Food of:
Blarina, 351
Castor, 48
Didelphis, 333
Eptesicus fuscus, 96
Erethizon dorsatum, 94
Microtus californicus, 96
Peromyscus, 94
Procyon, 448
Rattus, 294
Tamias, 350
Tarsier, 264
Taxidea, 355
Urogale, 353
Fox, arctic, 465
bat-eared, 186
cross, 359
gray, 78, 85, 197
red, 85, 194, 359, 465
franklini, Citellus, 158
Fraternal behavior of:
Procyon and Rattus, 354
frenata, Mustela, 146
fuliginosus, Cercocebus, 150
fulva, Vulpes, 85, 359
fulvescens, Rattus, 344
fulvorufula, Redunca, 188
fulvus, Lemur, 151
fumeus, Sorex, 83, 138
fuscus, Eptesicus, 84, 96, 455, 457

Galeopterus variegatus, 345
gapperi, Clethrionomys, 138, 359
Gardner, Marshall C.:
An undescribed Washington pocket gopher, 92
Gashwiler, Jay S.:
A study of the reproductive capacity of Maine muskrats, 180
Gaughran, George R. L.:
Domestic cat predation on short-tailed weasel, 356
Gazella dorcas dorcas, 188
gazella thomsoni, 188
granti, 188
Gazelle, Dorcas, 188
Grant's, 188
Thomson's, 188
Geomys breviceps texensis, tax., 348
bursarius, 288
bursarius llanensis, tax., 348
tuza austrinus, Fla., 314
Georgia, 460, 461
Gerenuk, 189
germinans, Crocuta, 186
Gestation of:
Ochotona, 356
Urogale, 353
Gibbon, hybrid, 150
gigas, Alces, 466
Giraffa camelopardalis reticulata, 187
capensis capensis, 187
capensis tippelskirchi, 187
Giraffe, Cape, 187
Masai, 187
reticulated, 187
Glands:
bats, 395
natalid organ, 439
pararhinal, 438
glareolus, Clethrionomys, 435
Glass, Bryan, P.:
(see M. Dale Arvey and Bryan P. Glass)
Glaucomys sabrinus, Mich., 359
volans querceti, Fla., 314
volans saturatus, N. C., 85
gliroides, Chiropodomys, 343
glis, Tupaia, 344
Glossophaga longirostris, 350

Goodpaster, Woodrow, and Donald F. Hoffmeister:
Bats as prey for mink in Kentucky cave, 457
Gopher, Dakota pocket, 23
pocket, 92
gossypinus, Peromyscus, 86, 314, 319
gracilis, Peromyscus, 100, 359
grampis, Felis, 328
granti, Gazella, 188
Greene, Howard C.:
A record of fox squirrel longevity, 454
grevyi, Dolichohippus, 189
grimmia, Sylvicapra, 188
griseus, Tamias, 347
Grivet, 186
Ground squirrel, 308
Growth of:
Callorhinus, 384
Didelphis, 334
Lynx, 329
Guenon, 150
Guilday, John E.:
Winter fetus in the little brown bat, Myotis lucifugus, 96
Gulo luscus luscus, Alaska, 466
gymnurus, Echinosorex, 344

Habitat of:
Peromyscus, 100
Phenacomys, 351
Sylvilagus, Calif., 1
Habits of:
timber wolf, 167
Urogale, 352
haematoreia, Neotoma, 86
Hair balls, 94
Halloran, Arthur F., and Willard E. Blanchard:
Bighorn ewe associates with cattle on Kofa Game Range, Ariz., 463
hamadryas, Papio, 150
Hamerstrom, F. N., Jr., and F. Lawrence Camburn:
Weight relationships in the George Reserve deer herd, 5
Hamilton, W. J., Jr.:
The prairie deer Mouse in New York and Pennsylvania, 100
Hamster, golden, 121
Harbert, Frank H.:
(see Irven O. Buss and Frank H. Harbert)
Hare, 361, 466
snowshoe, 193, 357, 359
harnieri, Kobus, 188
Harper, Francis:
(Review) Douglas Carruthers, Beyond the Caspian, a naturalist in central Asia, 468
Harris, William P., Jr.:
(Review) Leo Wender, Animal encyclopaedia, 102
Harrison, John L., and R. Traub:
Rodents and insectivores from Selangor, Maylaya, 337
Hartebeest, Coke's, 187
Jackson's, 187
Kenya, 187
Hartman, Carl G.:
A possible case of superfetation, 94
Haven, Herbert M. W., obit., 119
hawaiensis, Rattus, 154
Hawaii, 154, 455
Hayne, Don W.:
The home range of Microtus in relation to distance between traps, 26
Correction, 485
hecki, Connochaetes, 187
Helme, Arthur H., obit., 376
hemionus, Odocoileus, 193
hesperus, Pipistrellus, 456
Hesterberg, Gene A.:
Chipmunk eats frog, 350
Hibernation of:
Citellus, 158, 309
Hillemann, Howard H.:
(see Myrtle Dee Beatty and Howard H. Hillemann)
hiltonensis, Odocoileus, 87
hindei, Sylvicapra, 188
Hippopotamus amphibius amphibius, 187
amphibius capensis, 187
amphibius kiboko, 187
Hippopotamus, Cape, 187
East African, 187
northern, 187
Hipposideros speoris, parturition, 274, 277
Hippotigris quagga böhmi, 189
quagga chapmani, 189
Hippotragus equinus equinus, 189
niger niger, 189
hippurus, Callosciurus, 342
hispida, Phoca, 162
hispidus, Sigmodon, 86, 295, 317, 421

Hoffmeister, Donald F.:
(see Woodrow Goodpaster and Donald F. Hoffmeister)
Hog, giant forest, 187
wart, 187
Hollister, Mabel P., obit., 119
Home range of:
Didelphis, 332
Rattus, 155
hoolock, Hylobates, 151
Hooper, Emmet T.:
Use dermestid beetles instead of cooking pots, 100
(Review) Rudolph M. Anderson, Methods of collecting and preserving vertebrate animals, 102
Horner, B. Elizabeth:
Trichobezoars (hair balls) in Peromyscus, 94
Howard, Walter E.:
Winter fecundity of caged male white-footed mice in Michigan, 319
Hoyer, P. V., and R. M. Lane:
Some variations in the superficial muscles of the back of the albino rat (Rattus norvegicus), 288
Hoyt, Southgate Y., and Sally F. Hoyt:
Gestation period of the woodchuck, Marmota monax, 454
Hudson, George E.:
Cryptorchid elk (Cervus canadensis) in the Blue Mountains of Washington, 464
hudsonicus, Tamiasciurus, 359, 361
hudsonius, Zapus, 453, 461
humeralis, Nycticeius, 84
humulis, Reithrodontomys, 85, 314
Hunt, George S.:
Aquatic activity of a snowshoe hare, 193
Hunter, Gilbert N., and Robert G. Kinghorn:
Mountain sheep drive mule deer from food, 193
Hybridization in:
Peromyscus, 319
Primates, 150
Hybrids of:
bears, 449
Hylobates, 150
Hyena, spotted, 186
Hylobates agilis, 151
hoolock, 151
lar pileatus, 151
Hylochoerus meinertzhageni meinertzhageni, 187
Hylomys suillus, 345
Hystrix brachyura, 345

ibeana, Ichneumia, 186
Ichneumia albicauda ibeana, 186
Idaho, 97
idahoensis, Sylvilagus, 1
Illustration of:
Arctocephalus, 179
baculum of fur seal, 387
bat glands, hist., 397, 398
Cynopterus sphinx sphinx, 276
ears of bats, Natalidae, 440
Felis, concolor, 279
fur seal genitalia, 385, 386
hamster, osteogenesis, 125
moon phase and deer activity, 428
natalid organ, 440
Rattus, habitat, 155
trapping methods, 379
imberbis, Strepsiceros, 189
Impalla, 188
inas, Rattus, 344
India, 274
Indiana, 323
ingens, Mustela, 465
innuitus, Alopex, 465
insignis, Lariscus, 342
Napaeozapus, 138
intermedius, Phenacomys, 351
Iowa, 326, 331
irus, Macacus, 150

Jackal, black-backed, 186
Jackson, Hartley H. T.:
(Review) Wallace Byron Grange, The way to game abundance, 467
jacksoni, Alcelaphus, 187
Jaeger, Edmund C.:
The coyote as a seed distributor, 452
jalorensis, Rattus, 343
Jameson, E. W., Jr.:
The external parasites of the short-tailed shrew, Blarina brevicauda (Say), 138
Determining fecundity in male small mammals, 433
Jenkins, James H.:
(see Viola S. Schantz and James H. Jenkins)
Jenkins, James H., and David W. Johnston:
Additional records of the jumping

mouse, Zapus hudsonius, from Georgia, 461
Johnson, David H.:
Myotis subulatus leibii in Virginia, 197
Johnston, David W.:
(see James H. Jenkins and David W. Johnston)
johnstoni, Cercopithecus, 186
Jones, J. Knox, Jr.:
Another record of a swimming jumping mouse, 453
Jones, Victor E., obit., 376
jubatus, Acinonyx, 186
Judd, W. W.:
Mammal host records of Acarina and Insecta from the vicinity of Hamilton, Ontario, 357
Mammals observed in the Yukon Territory, Canada, in the summer of 1949, 360

Kansas, 346
kansensis, Taxidea, 346
Karlson, Eskil L.:
A new type of cage for recording daily activity rhythms of small mammals, 416
Kelly, Arthur L., and Lawrence R. Penner:
Spirocerca from the snow leopard, 462
Kelly, Arthur L., Lawrence R. Penner, and Rawson J. Pickard:
Sarcocystis in the moose, 462
kennicotti, Citellus, 304
Colobotis, 304
Kentucky, 323, 350; loc. list, 359; 457
kiboko, Hippopotamus, 187
Kinghorn, Robert G.:
(see Gilbert N. Hunter and Robert G. Kinghorn)
kirkii, Rhynchotragus, 188
Kirkpatrick, Charles M.:
Crow predation upon nestling cottontails, 322
kirtlandi, Blarina, 359
Klipspringer, 188
kob, Adenota, 188
Kob, white-eared, 188
Uganda, 188
Kobus defassa harnieri, 188
defassa ugandae, 188
ellipsiprymnus ellipsiprymnus, 188
kolbi, Cercopithecus, 186
korrigum, Damaliscus, 188
Krutzsch, Philip H.:
Carnivorous behavior in the big brown bat, 96
Kudu, greater, 189
lesser, 189

Laboratory observations of:
Rattus, 293
Ladd, William Sargent, obit., 119
langheldi, Papio, 150
lar, Hylobates, 151
Lariscus insignis, 342
Lasionycteris noctivagans, N. C., 84; Ont., par., 358
Lasiurus, 350
borealis, Calif., 457
borealis borealis, N. C., 84; migr., 349
borealis seminolus, S. C., 190
cinereus, Calif., behav., 456
seminolus, N. C., 84; Fla., 313
semotus, Hawaii, behav., 455; breeding, 456
lataxina, Lutra, 85
laticaudatus, Rhinosciurus, 342
latrans, Canis, 359
Lay, George B., obit., 119
leche, Adenota, 188
Lechewe, Nile, 188
leibii, Myotis, 97, 197
Lemming, brown, 466
collared, 466
Lemmus trimucronatus alascensis, Alaska, 466
Lemur, 150
flying, 269
Lemur fulvus, 151
macaco, 150
mongoz, 150
leo, Panthera, 186
Leopard, 187
snow, 462
lepidus, Natalus, 443
Nyctiellus, 437
Lepus, 257
americanus, Mich., 193, 359; gest., 357; 361
americanus dalli, Alaska, 466
californicus deserticola, 4
californicus eremicus, gest., 357
townsendii townsendii, 4
leucopus, Peromyscus, 86, 138, 256, 360
leucotis, Adenota, 188
Life history of:
Didelphis, 331

Lynx, 327
Rattus, 293
Lindeborg, Robert G.:
An adaptation of breeding Peromyscus maniculatus bairdii females to available water, and observations on changes in body weight, 74
Lion, Cape, 186
Masai, 187
sea, 164
lipura, Trichys, 345
Litocranius walleri walleri, 189
litoreus, Procyon, 84
Litters of:
Ondatra, 182
Peromyscus, 320
Litter size:
Lynx, 329
llanensis, Geomys, 348
Longevity:
Eptesicus fuscus, 455
Myotis, 350
Sciurus niger rufiventer, 454
longirostris, Glossophaga, 350
Sorex, 83
loringi, Clethrionomys, 22
lotor, Procyon, 84, 359
loulei, Thomomys, orig. desc., 92
Louisiana, 395
lowi, Callosciurus, 342
Loxodonta africana africana, 187
africana oxyotis, 187
lucifugus, Myotis, 84, 96, 267, 350, 359, 457
lunatus, Damaliscus, 188
Lupulella mesomelas mcmillani, 186
mesomelas mesomelas, 186
lupus, Canis, 171, 359
luscus, Gulo, 466
lutensis, Mustela, 85
Lutra canadensis, Mich., 359; Alaska, 466
canadensis lataxina, N. C., 85
canadensis vaga, Fla., 313
lycaon, Canis, 171
Lycaon pictus pictus, 186
Lynx, Canada, 359, 466
Lynx canadensis, Mich., 359
canadensis canadensis, Alaska, 466
rufus, Mich., 359
rufus baileyi, Calif., 327
rufus floridanus, N. C., 85
rufus rufus, N. C., 85; Mass., N. H., reprod., 327
rufus uinta, N. M., 327
lysteri, Tamias, 348, 358
Macaca radiata, 93
macaco, Lemur, 150
Macacus irus, 150
mulatta, 150
nemestrina, 150
radiata, 151
rhesus, 150
silenus, 150
Macaque, 150
macer, Chilonatalus, 443
Natalus, 443
macfarlani, Microtus, 466
machrinus, Scalopus, 458
maclellandi, Callosciurus, 342
macrodon, Ondatra, 180
macropus, Microtus, 351
macrotis, Corynorhinus, 84
macrourus, Atherurus, 344
maculata, Euderma, 197
magister, Neotoma, 198
Maine, 180
major, Natalus, 442
malaisia, Rattus, 343
mallurus, Sylvilagus, 86
Man, bear predation on, 135
Manatee, 98
Mandrillus, 150
Mangabey, 150
maniculatus, Peromyscus, 434, 435
Manitoba, 17
Manville, Richard H.:
The mammals of Drummond Island, Michigan, 358
A comparison of trapping methods, 377
maritimus, Thalarctos, 162, 449
Marmoset, 150
Marmot, hoary, 466
Marmota, Mich., 359
caligata broweri, Alaska, 466
monax, Penna., 196; N. Y., gest., 454
monax monax, N. C., 85
monax ochracea, Yukon, 361
monax rufescens, Ont., par., 358
marsupialis, Antidorcas, 188
Marten, 465
Martes americana actuosa, Alaska, 465
Massachusetts, 327, 354
massaica, Panthera, 187
massaicus, Phacochoerus, 187
Maylaya, loc. list, 337
McAtee, W. L.:
Possible early record of a manatee in Virginia, 98
McIlhenny, Edward A., obit., 119

mcmillani, Lupulella, 186
mearnsii, Sulvilagus, 323, 360
Measurements of:
Antilocapra, 192
baculum of fur seal, 390, 391
Enderma, 197
fur seals, 392
Microtus, 360
Peromyscus, 360
Pitymys, 360
Procyon, 445
Tadarida mexicana, 401
Taxidea, 347
megaceros, Adenota, 188
megalotis, Octocyon, 186
meinertzhageni, Hylochoerus, 187
melampus, Aepyceros, 188
melanochaitus, Panthera, 186
Mellivora capensis sagulata, 186
Membership list, 220
Menzies, George C.:
(see R. B. Eads and George C. Menzies)
Mephitis, Mich., 359
mephitis elongata, N. C., 85
mesomelas, Lupulella, 186
Metabolism in:
Citellus, 304
mexicana, Tadarida, 400, 456
mexicanus, Dasypus, 361
Natalus, 442
Michigan, 5, 26, 194, 319, 350, loc. list., 358; 377, 453, 454
micropus, Chilonatalus, 437
Natalus, 443
Microtus, 434
agrestis, 248
californicus, 96
longicaudus mordax, 351
miurus paneaki, Alaska, 466
montanus, Nev., cycles, 248
ochrogaster, 320, Ky., 360
oeconomus macfarlani, Alaska, 466
pennsylvanicus, 100, 138, Ont., 195; 248, Mont., 460
pennsylvanicus drummondii, 21
pennsylvanicus modestus, 194
pennsylvanicus pennsylvanicus, 26, N. C., 86; Ont., par., 357, 358; Mich., 359, 378
richardsoni, Mont., 460
richardsoni macropus, Wyo., 351
middendorffi, Ursus, 449
Migration of:
Lasiurus, 349
Mindanao, 260, 269
minimus, Eutamias, 359
Mink, 85, 359, 457, 465
mink, Mustela, 85
minor, Tupaia, 344
mitas, Cercocebus, 150
Cercopithecus, 186
modestus, Microtus, 194
Mole, Brewer's, 138
hairy-tailed, 458
prairie, 458
star-nosed, 83, 359
Molossus, 350
monax, Marmota, 85, 196, 454
Mongoose, 194
white-tailed, 186
mongoz, Lemur, 150
Monkey, bonnet, 93
Kolb's, 186
monochroura, Neotoma, 290
Montagu, M. F. Ashley:
A hybrid gibbon, 150
Montana, 90, 192, 197, 460
montana, Taxidea taxus, orig. desc., 90
montanus, Microtus, 248
Moose, 359, 460, 462, 466
mordax, Microtus, 351
moschatus, Nesotragus, 188
Mouse, cotton, 86, 314
eastern harvest, 86, 314
golden, 86, 316
house, 86, 359, 403
jumping, 194, 453
meadow jumping, 22, 86, 359, 461
oldfield, 85
prairie deer, 20, 100
white-footed, 86, 138, 318
woodland deer, 359
woodland jumping, 86, 138
Movements of:
Didelphis, 332
Oryzomys, 316
Peromyscus, 315
Rattus, 154
Sigmodon, 316
timber wolf, 169
muiri, Ichotona, 356
mulatta, Macacus, 150
mülleri, Rattus, 344
murica, Mustela, 356
murinus, Suncus, 345
Mus musculus, 267, 344, Mich., 359; activity, 403
musculus musculus, N. C., 86

Musacchia, X. J.:
(see Charles G. Wilber and X. J. Musacchia)
Muscles of:
Rattus, 288
musculus, Mus, 86, 267, 344, 359, 403
Muskrat, 54; 86, 97, 359, 453
common, 180
round-tailed, 460
Virginia, 180
Mustela erminea, Wis, 146; Mich., 359
erminea arctica, Alaska, 465
erminea murica, Wyo., 356
frenata, Wis., 146
frenata noveboracensis, N. C., 84
frenata olivacea, N. C., 84
frenata peninsulae, Fla., 313
nigripes, Mont., 99; Okla., 460
rixosa allegheniensis, Wis., 146
rixosa, rixosa, Alaska, 465
vison, Mich., 359
vison ingens, Alaska, 465
vison lutensis, N. C., 85
vison mink, N. C., 85
myops, Erethizon, 466
Myotis, 350
keenii septentrionalis, N. C., 84
lucifugus, 96, 267, Ky., 350, 457
lucifugus lucifugus, N. C., 84; Mich., 359
sodalis, N. C., 84; Ky., 350, 457
subulatus leibii, 97, Va., 197

Nakamura, Mitsuru:
Tularemia in the jumping mouse, 194
Napaeozapus insignis, 138
insignis roanensis, N. C., 86
natalensis, Cephalophus, 188
Natalidae, 436
Natalus, tax., 442, 443
brevimanus, tax., 443
dominicensis, tax., 442
lepidus, tax., 443
macer, tax., 443
major, tax., 442
mexicanus mexicanus, tax., 442
mexicanus saturatus, Mex., 436, tax., 442
micropus, tax., 443
primus, tax., 442
stramineus, 437, tax., 442
tumidifrons, tax., 443
tumidirostris, tax., 442
natator, Oryzomys, 316, 421
Nebraska, 158, 453
Negus, N. C.:
Breeding of three-year-old females in the Jackson Hole Wildlife Park buffalo herd, 463
Fluctuation in the population of Neotoma cinerea (woodrat) in Jackson Hole, Wyoming, 196
Habitat adaptability of Phenacomys in Wyoming, 351
Neill, Wilfred T.:
(see E. Ross Allen and Wilfred T. Neill)
nemestrina, Macacus, 150
Neofiber alleni, Ga., 460
Neotoma cinerea, Wyo., 196
floridana floridana, N. C., 86; Fla., 361, behav., 421
floridana haematoreia, N. C., 86
fuscipes monochroura, 290
magister, Pa., 198
Nesotragus moschatus akeleyi, 188
Nest of:
Glaucomys, 314
Neotoma, 290
Sciurus, 313
Sylvilagus, 323
neumanni, Papio, 186
Raphicerus, 188
Nevada, 350
New Hampshire, 327
New Mexico, 327
New York, 40, 94, 138, 327
Nichols, J. T.:
Additional data on the occurrence of Dall's porpoise, 99
Nicholson, A. J.:
A record of the spotted bat (Euderma maculata) for Montana, 197
niger, Cynopithecus, 150
Hippotragus, 189
Sciurus, 85, 314
nigripes, Mustela, 99, 460
nigrovittatus, Callosciurus, 342
noctivagans, Lasionycteris, 84, 358
noctula, Nyctalus, 274, 277, 278, 395, 438
North Carolina, 97
North Dakota, 197, 354
norvegicus, Rattus, 86, 154, 267, 288, 293, 320, 345, 358, 434
notatus, Callosciurus, 342
noveboracensis, Mustela, 84
Peromyscus, 86, 100, 267, 319
Numbers of:
timber wolf, 167

Nutrition: 15
nuttalli, Peromyscus, 86
Nyala, 189
Nyctalus noctula, 274, 277, 278, 395, 438
Nycticeius humeralis, N. C., 84
Nyctiellus lepidus, 347; syn., 443

obesus, Odobaenus, 162
obscurus, Sorex, 465
occidentalis, Cervus, 362
Occurrence of:
Dall's porpoise, 99
manatee, 98
Myotis subulatus leibii, 97
Ochotona princeps, 4
princeps, muiri, gest., 356
ochracea, Marmota, 361
ochrogaster, Microtus, 320, 360
Octocyon megalotis virgatus, 186
Odobaenus obesus, 162
Odocoileus hemionus, Colo., 193
virginianus, Mich., 359
virginianus borealis, 5
virginianus hiltonensis, N. C., 87
virginianus taurinsulae, N. C., 87
virginianus venatorius, N. C., 87
virginianus virginianus, N. C., 87
Oestrus cycle in:
Lynx, 328
Ohio, 458
Oklahoma, 460
Olds, J. M.:
Notes on the hood seal (Cystophora cristata), 450
olivacea, Mustela, 84
Olive, John R.:
An extension of range of the hairy-tailed mole, Parascalops breweri (Bachman), 458
Ondatra zibethica, Mich., 359
zibethica osoyoosensis, 97
zibethica zibethica, N. C., 86; Me., 180; Ont., par., 358; Mich., 453
Ontario, 138, 169, 347, 357
ontarionensis, Zapus, 357, 358
Opossum, N. C., 83; 94, Fla., 313
Oregon, 290
Oreotragus oreotragus schillingsi, 188
ornatus, Sorex, 352
Orr, Robert T.:
Additional records of Urus californicus, 362
Early records of Californian mammals, 362
Unusual behavior and occurrence of a hoary bat, 456
Notes on the seasonal occurrence of red bats in San Francisco, 457
Oryctolagus cuniculus, gest., 357
Oryx beisa beisa, 189
oryx, Taurotragus, 189
Oryzomys palustris natator, Fla., 316, behav., 421
palustris palustris, N. C., 86
osoyoosensis, Ondatra, 97
Ossification centers in:
hamster embryos, 123
Osteogenesis of:
Cricetus, 121
Otter, 85, 359
Florida, 313
river, 466
Ovis canadensis, Colo., 193; Ariz., behav., 463
dalli dalli, Alaska, 466
oxyotis, Loxodonta, 187
oxythous, Urocyon, 198

pacificus, Sorex, 352
pallidus, Antrozous, 350, 456
Zapus, 454
paludicola, Sylvilagus, 318
palustris, Oryzomys, 86
Sorex, 140, 352, 460
Sylvilagus, 86
paneaki, Microtus, 466
Panther, 279
Panthera leo massaica, 187
leo melanochaitus, 186
pardus suahelica, 187
uncia, par., 462
Papio anubis anubis, 186
hamadryas, 150
longheldi, 150
sphinx, 150
ursinus ursinus, 186
Parascalops breweri, 138; O., distr., 458
Parasites of:
Alces, 462
Blarina, 138
Neotoma, 290
Panthera uncia, 462
Urocyon cinereoargenteus, 78
pardus, Panthera, 187
parryi, Citellus, 304
Colobotis, 304
Parturition in:
Bats, 274

parva, Cryptotis, 84, 138, 360
pattersonianus, Taurotragus, 189
Pearson, Oliver P.:
Keeping shrews in captivity, 351
pectoralis, Reithrodontomys, 363
Pedetes cafer surdaster, 187
peninsulae, Mustela, 313
Penner, Lawrence R.:
(see Arthur L. Kelly and Lawrence R. Penner)
(see Arthur L. Kelly, Lawrence R. Penner, and Rawson J. Pickard)
Penney, J. T.:
Distribution and bibliography of the mammals of South Carolina, 81
Pennsylvania, 96, 198, 281, 325
pennsylvanicus, Microtus, 26, 86, 100, 138, 194, 195, 248, 357, 359, 460
Peromyscus, 94, 141, par., 358; 433
boylii boylii, Calif., 320
gossypinus, 319
gossypinus gossypinus, N. C., 86; Fla., 314
leucopus, 138, 256
leucopus leucopus, N. C., 86; Ky., 360
leucopus noveboracensis, N. C., 86; 100, 267, Mich., breeding, 319
maniculatus, 434, 435
maniculatus bairdii, Man., 20; N. Y., 100
maniculatus gracilis, 100, Mich., 359, 378
nuttalli aureolus, N. C., 86; Fla., 316
nuttalli nuttalli, N. C., 86
polionotus polionotus, N. C., 85
Peterson, Arthur Ward:
Backward swimming of the muskrat, 453
Phacochoerus africanus massaicus, 187
africanus sundevallii, 187
Phenacomys intermedius intermedius, Wyo., 351
Philippine Islands, 352
Phoca hispida, 162
Phocaena communis, 164
Phocoenoides dalli, 99
Phodotes tumidirostris, 437, syn., 442
Physiology of:
Citellus, 304
Pickard, Rawson J.:
(see Arthur J. Kelly, Lawrence R. Penner, and Rawson J. Pickard)
Pickwell, Gayle, obit., 376
pictus, Lycaon, 186
pigra, Didelphis, 83, 313
Pika, 4, 356
pileatus, Hylobates, 151
pinetorum, Pitymys, 86, 138
Pipistrellus, 350
hesperus, Calif., 456
subflavus, 456, Ky., 457
subflavus subflavus, N. C., 84; Fla., 313
Pitymys pinetorum, 138
pinetorum auricularis, Ky., 360
pinetorum pinetorum, N. C., 86
pinetorum scalopsoides, Ont., par., 358
platyceros, Rucervus, 430
Pocket gopher, 288, 314, 320, 348, 362
polionotus, Peromyscus, 85
Pollack, E. Michael:
Breeding habits of the bobcat in northeastern United States, 327
Population of:
Clethrionomys, 22
Microtus, 21
Mus musculus, 403
Peromyscus, 20
Neotoma, 196
Rattus, 298
small mammals, 17
Sorex, 22
Thomomys, 23
Porcupine, 94, 359, 466
Porpoise, 165
Dall's, 99
Porter, Richard D.:
Belding ground squirrel in northwestern Utah, 198
Pournelle, George H.:
Mammals of a north Florida swamp, 310
Two new mammal records from the vicinity of Welaka, Putnam County, Florida, 361
Prairie dog, 354
preblei, Tamiasciurus, 466
Precocity in:
Microtus, 195
Predation by:
bear, 135
mink, 457
mongoose, 194
Predation on:
bats, 457
domestic cat, 356
Mustela, 147
Sylvilagus, 322
Preston, F. W.:
Mongoose luring guinea fowl, 194
prevosti, Callosciurus, 342

primus, Natalus, 442
princeps, Zapus, 194, 453
Procyon, 354
lotor, Mich., 359
lotor elucus, Fla., 313
lotor litoreus, N. C., 84
lotor lotor, N. C., 84
lotor psora, Wash., hab., 444; meas., 445; wt., 446; sex ratio, 448
lotor solutus, N. C., 84
psora, Procyon, 444
putorius, Spilogale, 85
pygargus, Damaliscus, 188
pygerythrus, Arcopithecus, 186

quagga, Hippotigris, 189
Quebec, 347, 455
quebecensis, Tamias, 347
querceti, Glaucomys, 314

Rabbit, brush, 1
California jack, 357
cottontail, 86
European wild, 357
marsh, 86
pigmy 1
swamp, 87, 318
Raccoon, 84, 313, 354, 359, 444, 448
radcliffei, Syncerus, 189
radiata, Macaca, 93
Macacus, 151
rajah, Rattus, 344
Ramakrishna, P. A.:
Parturition in certain Indian bats, 274
Range, cruising:
Mus musculus, 404
Range of: Microtus, 26
Rangifer arcticus, Yukon, 361
arcticus stonei, Alaska, 466
caribou, Mich., 359
Raphicerus campestris capricornis, 188
campestris neumanni, 188
Rat, albino, 288
black, 86, 293
brown, 154, 320
cotton, 86, 317, 421
fruit, 293
Hawaiian, 154
house, 359
Norway, 86
rice, 86, 316, 421
roof, 86, 154, 293, 461
white, 354
Ratel, 186
Rattus, 354
alticola inas, 344
bowersi, 343
canus malaisia, 343
cremoriventer, 344
edwardsi, 344
exulans concolor, 344
ferreocanus, 343
fulvescens, 344
hawaiensis, Hawaii, 154
mülleri, 344
norvegicus, N. C., 86; Hawaii, 154; 267, 288, 293, 320, 345, par., 358; 434
rajah, 344
rapit cameroni, 344
rattus, Hawaii, 154
rattus alexandrinus, N. C., 86; 293, W. Va., 461
rattus argentiventer, 343
rattus diardi, 343
rattus jalorensis, 343
rattus rattus, N. C., 86; 293, W. Va., 461
sabanus, 344
validus, 344
whiteheadi, 344
Ratufa affinis, 342
bicolor, 342
Rausch, Robert:
Notes on the distribution of some Arctic mammals, 464
Redunca arundinum arundinum, 188
fulvorufula chanleri, 188
redunca cottoni, 188
Reedbuck, 188
Bohor, 188
Chanler's mountain, 188
Reithrodontomys, 101
humulis humulis, N. C., 85; Fla., 314
megalotis pectoralis, Wisc., 363
Reproduction in:
Antilocapra, 192
Didelphis, 333
Lynx, 327
Ondatra, 180
Reproductive status: small mammals, 95
reticulata, Giraffa, 187
rhesus, Macacus, 150
Rhinoceros, black, 189
Rhinolophus, 350
Rhinosciurus laticaudatus, 342
Rhizomys sumatrensis, 343
Rhynchotragus kirkii, 188
richardsoni, Ursus, 465
Microtus, 460

Richmond, Neil D., and Harry R. Roslund:
The woodrat, Neotoma magister, in Venango County, Pennsylvania, 198
rixosa, Mustela, 146, 465
roanensis, Napaeozapus, 86
Roberts, J. H.:
(see H. J. Werner, W. W. Dalquest, and J. H. Roberts)
Roslund, Harry R.:
(see Neil D. Richmond and Harry R. Roslund)
roulaleyni, Tragelaphus, 189
Rowan, Wm.:
Winter habits and numbers of timber wolves, 167
rubricatus, Dicrostonyx, 466
Rucervus eldii platyceros, Siam, 430
rufescens, Marmota, 358
Thomomys, 23
rufigenis, Dremomys, 342
rufiventer, Sciurus, 85, 454
rufus, Lynx, 85, 327, 359

sabanus, Rattus, 344
sabrinus, Glaucomys, 359
sagulata, Mellivora, 186
Salinger, Herbert E.:
Mating of muskrats, 97
Salt licks, 426
Sanborn, Colin Campbell, and A. Rush Watkins:
Notes on the Malay tapir and other game animals in Siam, 430
Sanderson, Glen C.:
Small-mammal population of a prairie grove, 17
Sassaby, 188
saturatus, Glaucomys, 85
Natalus, 436
Saunders, W. E., memorial to, 119
scalopsoides, Pitymys, 358
Scalopus, Penn., behav., 281
aquaticus aquaticus, N. C., 83
aquaticus howelli, N. C., 83
aquaticus machrinus, O., 458
Schantz, Viola S.:
A new badger from Montana, 90
The gray fox in North Dakota, 197
A new race of badger (Taxidea) from Kansas, 346
Schantz, Viola S., and James H. Jenkins:
Extension of range of the round-tailed muskrat, Neofiber alleni, 460
Scheffer, Victor B.:
Growth of the testes and baculum in the fur seal, Callorhinus ursinus, 384
Notes on the raccoon in southwest Washington, 444
schillingsi, Oreotragus, 188
Schorger, A. W.:
Harvest mouse in Dane County, Wisconsin, 363
Sciurus, Mich., 359
carolinensis carolinensis, N. C., 85; Fla., 313
niger niger, N. C., 85; Fla., 314
niger rufiventer, N. C., 85; Mich., long., 454
scriptus, Tragelaphus, 189
Seal:
fur, 384
Guadalupe fur, 175
harp, 450
hood, 450
ringed, 162
seminolus, Lasiurus, 84, 190, 313
Semnopitheque, 150
semotus, Lasiurus, 455
septentrionalis, Myotis, 84
Setzer, Henry W.:
Albinism in bats, 350
Severaid, Joye Harold:
The pigmy rabbit (Sylvilagus idahoensis) in Mono County, California, 1
The gestation period of the pika (Ochotona princeps), 356
sex ratio:
Lynx, 330
Procyon, 448
Tadarida, 402
Shadle, Albert R.:
Feeding, care, and handling of captive porcupines (Erethizon), 411
Sheep:
Dall, 466
mountain, 193
Sheppard, Walter B., obit., 376
Shortridge, G. C., obit., 119
Shrew, 465
Bachman's, 83
cinereous, 459
least, 84, 138, 313
little short-tailed, 360
long-tailed, 138, 352
masked, 22, 359
Philippine tree, 352

short-tailed, 84, 138, 313, 315, 359
smoky, 83, 138
Siam, 430
Sigmodon hispidus, 295, 421
hispidus hispidus, N. C., 86; Fla., 317
silenus, Macacus, 150
Sitatunga, 189
Skunk, spotted, 85
striped, 85, 359
Snyder, Dana P.:
(Review) W. C. Allee, A. E. Emerson, O. Park, T. Park, and K. P. Schmidt, Principles of Animal Ecology, 365
sodalis, Myotis, 84, 350, 457
solutus, Procyon, 84
Sorex araneus, 140
cinereus, 22, 100, 138, 352
cinereus cinereus, Mich., 359; Colo., 459
cinereus ugyunak, Alaska, 465
fumeus, 138
fumeus fumeus, N. C., 83
longirostris longirostris, N. C., 83
obscurus obscurus, Alaska, 465
ornatus, 352
pacificus, 352
palustris, 140, 352, Mont., 460
trowbridgii, 352
vagrans, 352, Mont., 460
South America, 436
South Carolina, 81, 190
South Dakota, 355
spekii, Tragelaphus, 189
Spencer, H. J., and David E. Davis:
Movements and survival of rats in Hawaii, 154
speoris, Hipposideros, 274
Spermophilis barrowensis, 304
sphinx, Cynopterus, 274
Papio, 150
Spilogale putorius, N. C., 85
Springbok, 188
Springhaas, 187
Squirrel, Belding ground, 198
flying, 359
fox, 85, 314, 359, 454
Franklin, 158
gray, 85, 313, 359
ground, 304, 466
Point Barrow, 304
red, 85, 359, 361, 378, 466
southern flying, 85, 314
thirteen-lined ground, 158
Steinbok, Neumann's, 188
South African, 188
stonei, Rangifer, 466
Stott, Ken, Jr.:
Locality records of African mammals, 185
stramineus, Natalus, 437, 442
Strecker, Robert L.:
(see Howard Young, Robert L. Strecker, and John T. Emlen, Jr.)
Strepsiceros imberbis australis, 189
strepsiceros strepsiceros, 189
striatus, Tamias, 85, 138, 350, 359
suahelica, Panthera, 187
suara, Aepyceros, 188
subflavus, Pipistrellus, 84, 313, 456, 457
subulatus, Myotis, 197
suillus, Hylomys, 345
sumatrensis, Rhizomys, 343
Suncus murinus, 345
sundevallii, Phacochoerus, 187
Suni, 188
Superfetation, 94
surdaster, Pedetes, 187
Survival of:
Rattus, 154
swimming by:
Lepus, 193
Peromyscus, 314
Sigmodon, 317
Zapus, 454
Switzenberg, D. F.:
Breeding productivity in Michigan red foxes, 194
sylvaticus, Apodemus, 248
Sylvicapra grimmia grimmia, 188
grimmia hindei, 188
Sylvilagus, 356
aquaticus aquaticus, N. C., 87
audubonii arizonae, 4
bachmani, 1
floridanus mallurus, N. C., 86
floridanus mearnsii, prey, 323; Ky., 360
nuttallii grangeri, 1
palustris paludicola, Fla., 318
palustris palustris, N. C., 86
Synaptomys borealis, Mont., 460
Syncerus caffer caffer, 189
caffer radcliffei, 189

Tadarida cynocephala, N. C., 84; 277, anat., 395
mexicana, Tex., 400; Calif., 456
talpoides, Thomomys, 92

Tamias striatus, 138, Mich., 350, 359
striatus griseus, 347
striatus lysteri, 348, Ont., par., 358
striatus **quebecensis**, orig. desc., 347
striatus striatus, N. C., 85
Tamiasciurus hudsonicus, Mich., 359; Yukon, 361
hudsonicus abieticola, N. C., 85
hudsonicus preblei, Alaska, 466
Tamiops maclellandi, 342
Tapir, Malay, 430
Tarsier, 260
Tarsius carbonarius, 260
taurinsulae, Odocoileus, 87
taurinus, Connochaetes, 187
Taurotragus oryx pattersonianus, 189
Taxidea, Mich., 359
taxus, Wyo., 355
taxus **kansensis**, orig. desc. 346
taxus **montana**, Montana, orig. desc., 90
Techniques:
bone staining, 122
cleaning skeletons, 464
determining fecundity, 433
fat extraction, 162
Teeth: retarded eruption rate in Odocoileus, 15
Temperature tolerances of: Didelphis, 333,
tenuis, Callosciurus, 342
Tevis, Lloyd, Jr.:
Summer behavior of a family of beavers in New York state, 40
Texas, 78, 348, 400
texensis, Geomys, 348
Thalarctos maritimus, 162, hybrid, 449
thomasi, Adenota, 188
Thomomys bottae, 320
bottae bottae, Calif., 362
talpoides **louiei**, Washington, orig. desc. 92
talpoides rufescens, 23
thomsoni, Gazella, 188
Tiang, 188
tiang, Damaliscus, 188
Tiger, 431
tippelskirchi, Giraffa, 187
townsendi, Arctocephalus, 175
Toxoplasma, 248
Tragelaphus angasii, 189
scriptus delamerei, 189
scriptus roulaleyni, 189
spekii spekii, 189
Trap construction, 364
Trapping: Didelphis, 331
methods, 26, 377
Rattus, 298
Trichobezoars, 94
Trichys lipura, 345
tridecemlineatus, Citellus, 158, 256, 308
trinitatus, Artibeus, 277
trowbridgii, Sorex, 352
Tryon, Clarence A., Jr., and Paul David Buck:
Montana records of antelope embryos and reproductive tracts, 192
tumidifrons, Chilonatalus, 443
Natalus, 443
tumidirostris, Natalus, 442
Phodotes, 437
tundrarum, Canis, 465
Tupaia glis, 344
minor, 344
Tyson, Edwin L.:
Summer food habits of the raccoon in southwest Washington, 448

ugandae, Kobus, 188
ugyunak, Sorex, 465
uinta, Lynx, 327
uncia, Panthera, 462
Urocyon cinereoargenteus, 78
cinereoargenteus cinereoargenteus, N. C., 85
cinereoargenteus oxythous, N. D., 198
Urogale everetti, hab., 352
ursinus, Callorhinus, 384
Papio, 186
Ursus americanus, Mich., 359; Yukon, 360
americanus americanus, N. C., 84
californicus, Calif., loc. rec., 362
colusus, 363
middendorffi, hybrid, 449
richardsoni, Alaska, 465
Utah, 198

vaga, Lutra, 313
vagrans, Sorex, 352, 460
validus, Rattus, 344
Variation, weight, Odocoileus, 5
variegatus, Galeopterus, 345
velox, Acinonyx, 186
venatorius, Odocoileus, 87
Venezuela, 350, 436
Vervet, 186
East African, 186
virgatus, Octocyon, 186
Virginia, 98, 197
virginiana, Didelphis, 83, 331
virginianus, Odocoileus, 87, 359

vison, Mustela, 359
Voge, Marietta:
Cannibalism in Microtus californicus, 96
volans, Cynocephalus, 269
Vole, field, 194
meadow, 21, 26, 86, 138, 359
pine, 86, 138, 360
prairie, 320
prairie meadow, 360
red-backed, 22, 138, 359, 466
tundra, 466
Vulpes fulva, N. C., 85; Mich., 359
fulva alascensis, Alaska, 465

Wade, Otis:
Soil temperatures, weather conditions, and emergence of ground squirrels from hibernation, 158
walleri, Litocranius, 189
Walrus, 162
Walters, Roland D., and V. D. Roth:
Faunal nest study of the woodrat, Neotoma fuscipes monochroura Rhoads, 290
Washington, 92, 426, 444, 464
Waterbuck, common, 188
Defassa, 188
Watkins, A. Rush:
(see Colin Campbell Sanborn and A. Rush Watkins)
Watson, Gordon W.:
(see Wilfred D. Crabb and Gordon W. Watson)
Weasel, 359
least, 146, 465
long-tailed, 84, 146, 313
short-tailed, 146, 356
Weights:
Lynx, 329
Odocoileus virginianus borealis, 5
Peromyscus, 74
sex variation, Odocoileus, 6
testes of fur seal, 388
Werner, H. J., W. W. Dalquest, and J. H. Roberts:
Histological aspects of the glands of the bat, Tadarida cynocephala (Le Conte), 395
West Virginia, 461
Whale, Antarctic blue, 164
Wharton, Charles H.:
The tarsier in captivity, 260
Notes on the life history of the flying lemur, 269
Notes on the Philippine tree shrew, Urogale everetti Thomas, 352
whiteheadi, Rattus, 344
Whitlock, S. C.:
The black bear as a predator of man, 135
Wilber, Charles G., and X. J. Musacchia:
A comparative study of lipids in arctic marine mammals, 162
Fat metabolism in the arctic ground squirrel, 304
Wildebeest, brindled, 187
white-bearded, 187
Wisconsin, 146, 363
Wiseman, George L., and G. O. Hendrickson:
Notes on the life history and ecology of the opossum in southeast Iowa, 331
Wolf, 465
timber, 167, 169, 359
Wolverine, 466
Woodchuck, 85, 196, 359, 361, 454
Woodrat, 86, 196, 198, 361, 421
dusky-footed, 290
Worth, C. Brooke:
Field and laboratory observations on roof rats, Rattus rattus (Linnaeus), in Florida, 293
Observations on the behavior and breeding of captive rice rats and woodrats, 421
Wright, Philip L.:
Synaptomys borealis from Glacier National Park, Montana, 460
Wyoming, 194, 196, 351, 355, 356, 463

Young, Howard, Robert L. Strecker, and John T. Emlen, Jr.:
Localization of activity in two indoor populations of house mice, Mus musculus, 403
Yukon Territory, loc. list, 360

Zapus, Mich., 359
hudsonius, Ga., 461
hudsonius americanus, N. C., 86
hudsonius campestris, 22
hudsonius hudsonius, 453
hudsonius ontarionensis, Ont., par., 357
hudsonius pallidus, Neb., swimming, 454
princeps, Wyo., 194; 453
Zebra, Chapman's, 189
East African, 189
Grevy's 189
zibethica, Ondatra, 86, 180, 358, 359, 453